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STRUCTURE FILE UPDATES: 7 MAR 2003 HIGHEST RN 497212-14-3
DICTIONARY FILE UPDATES: 7 MAR 2003 HIGHEST RN 497212-14-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

L1 545 CC, 42P, C, 3, 7C/SCSP
L2 2 GCCSLPPCALNMPYCSQSP

FILE 'CA' ENTERED AT 07:44:57 ON 09 MAR 2003 COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

L3 208 L1
L4 89 L1 AND CONOTOXIN
L5 412

L4 ANSWER 1 OF 89 CA COPYRIGHT 2003 ACS
TI Identification of the nicotinic receptor subtypes expressed on dopaminergic terminals in the rat striatum PY 2002

L4 ANSWER 2 OF 89 CA COPYRIGHT 2003 ACS
TI Declines in different, beta 2, nicotinic receptor populations in monkey striatum after nigrostriatal damage PY 2002

L4 ANSWER 3 OF 89 CA COPYRIGHT 2003 ACS
TI alpha-***Conotoxin*** IC from Conus geographus, a Novel Peptide Antagonist of Nicotinic Acetylcholine Receptors PY 2002

L4 ANSWER 4 OF 89 CA COPYRIGHT 2003 ACS
TI The synthesis and structure of an n-terminal dodecanoic acid conjugate of .alpha.-***conotoxin*** Mil PY 2002

L4 ANSWER 5 OF 89 CA COPYRIGHT 2003 ACS
TI Characterization of [125I]epibatidine binding and nicotinic agonist-mediated 86Rb+ efflux in interpeduncular nucleus and inferior colliculus of beta 2 null mutant mice PY 2002

L4 ANSWER 6 OF 89 CA COPYRIGHT 2003 ACS
TI Toxins R' Us: more pharmacological tools from nature's superstore PY 2002

L4 ANSWER 7 OF 89 CA COPYRIGHT 2003 ACS
TI Alpha ***conotoxin*** peptides with analgesic properties PY 2002

L4 ANSWER 8 OF 89 CA COPYRIGHT 2003 ACS
TI Differential nicotinic receptor expression in monkey basal ganglia: Effects of nigrostriatal damage PY 2002

L4 ANSWER 9 OF 89 CA COPYRIGHT 2003 ACS
TI Methyllycaconitine is a potent antagonist of .alpha.-***conotoxin*** -Mil-sensitive presynaptic nicotinic acetylcholine receptors in rat striatum PY 2002

L4 ANSWER 10 OF 89 CA COPYRIGHT 2003 ACS
TI Novel conotoxins for use in the therapeutic regulation of ion channel function PY 2002

L4 ANSWER 11 OF 89 CA COPYRIGHT 2003 ACS
TI A novel choline-sensitive nicotinic receptor subtype that mediates enhanced GABA release in the chick ventral lateral geniculate nucleus PY 2002

L4 ANSWER 12 OF 89 CA COPYRIGHT 2003 ACS
TI 5-iodo-A-85380 binds to .alpha.-***conotoxin*** -Mil-sensitive nicotinic acetylcholine receptors (nAChRs) as well as .alpha.4.beta.2* subtypes PY 2002

L4 ANSWER 13 OF 89 CA COPYRIGHT 2003 ACS
TI Involvement of the .alpha.3 subunit in central nicotinic binding populations PY 2002

L4 ANSWER 14 OF 89 CA COPYRIGHT 2003 ACS
TI Solution conformation of .alpha.-***Conotoxin*** EI, a neuromuscular toxin specific for the .alpha.1/delta subunit interface of Torpedo nicotinic acetylcholine receptor PY 2001

L4 ANSWER 15 OF 89 CA COPYRIGHT 2003 ACS
TI Protein sequences of synthetic Conus .alpha.-conotoxins and the therapeutic uses thereof as neuromuscular blocking agent PY 2002

L4 ANSWER 16 OF 89 CA COPYRIGHT 2003 ACS

TI New members of the .mu.-***conotoxin*** family for use in the treatment of disease associated with sodium channel function and cDNAs encoding them PY 2002 2002

L4 ANSWER 17 OF 89 CA COPYRIGHT 2003 ACS
TI Loss of nicotinic receptors in monkey striatum after 1-methyl-4-phenyl- 1,2,3,6-tetrahydropyridine treatment is due to a decline in .alpha.-***conotoxin*** Mil sites PY 2002

L4 ANSWER 18 OF 89 CA COPYRIGHT 2003 ACS
TI Two new classes of conopeptides inhibit the .alpha.1-adrenoceptor and noradrenaline transporter PY 2001

L4 ANSWER 19 OF 89 CA COPYRIGHT 2003 ACS
TI Vulnerability of 125I-.alpha.-***conotoxin*** Mil binding sites to nigrostriatal damage in monkey PY 2001

L4 ANSWER 20 OF 89 CA COPYRIGHT 2003 ACS
TI Mechanisms for evolving hypervariability: the case of conopeptides PY 2001

L4 ANSWER 21 OF 89 CA COPYRIGHT 2003 ACS
TI An efficient synthetic scheme for natural .alpha.-conotoxins and their analogues PY 2001

L4 ANSWER 22 OF 89 CA COPYRIGHT 2003 ACS
TI An .alpha.4.beta.4 nicotinic receptor subtype is present in chick retina: identification, characterization and pharmacological comparison with the transfected .alpha.4.beta.4 and .alpha.5.beta.4 subtypes PY 2001

L4 ANSWER 23 OF 89 CA COPYRIGHT 2003 ACS
TI Structure-Activity Relationships in a Peptidic .alpha.7 Nicotinic Acetylcholine Receptor Antagonist PY 2000

L4 ANSWER 24 OF 89 CA COPYRIGHT 2003 ACS
TI Protein and cDNA sequences of Conus conotoxins and therapeutic uses thereof PY 1999

L4 ANSWER 25 OF 89 CA COPYRIGHT 2003 ACS
TI Alpha-conotoxins and nucleic acids encoding them PY 2000 2001 2002

L4 ANSWER 26 OF 89 CA COPYRIGHT 2003 ACS
TI Protein and cDNA sequences of Conus .alpha.-conotoxins and the therapeutic uses thereof as neuromuscular blocking agent PY 2000 2000 2001 2001

L4 ANSWER 27 OF 89 CA COPYRIGHT 2003 ACS
TI 125I-.alpha.-***conotoxin*** Mil identifies a novel nicotinic acetylcholine receptor population in mouse brain PY 2000

L4 ANSWER 28 OF 89 CA COPYRIGHT 2003 ACS
TI .beta.3 Subunit is present in different nicotinic receptor subtypes in chick retina PY 2000

L4 ANSWER 29 OF 89 CA COPYRIGHT 2003 ACS
TI Conus peptides: novel probes for nicotinic acetylcholine receptor structure and function PY 2000

L4 ANSWER 30 OF 89 CA COPYRIGHT 2003 ACS
TI UB-165: A novel nicotinic agonist with subtype selectivity implicates the .alpha.4.beta.2* subtype in the modulation of dopamine release from rat striatal synaptosomes PY 2000

L4 ANSWER 31 OF 89 CA COPYRIGHT 2003 ACS
TI Leu10 of .alpha.-***conotoxin*** PnIB confers potency for neuronal nicotinic responses in bovine chromaffin cells PY 2000

L4 ANSWER 32 OF 89 CA COPYRIGHT 2003 ACS
TI .rho.-***Conotoxin*** peptides with .alpha.1-adrenoceptor antagonist activity, nucleic acids encoding them, antibodies, and therapeutic uses PY 2000 2000 2000 2001 2002

L4 ANSWER 33 OF 89 CA COPYRIGHT 2003 ACS
TI Pairwise interactions between neuronal alpha 7 acetylcholine receptors and .alpha.-***conotoxin*** PnIB PY 2000

L4 ANSWER 34 OF 89 CA COPYRIGHT 2003 ACS
TI Preparation of cyclized ***conotoxin*** peptides PY 2000 2000 2002 2001

L4 ANSWER 35 OF 89 CA COPYRIGHT 2003 ACS
TI Pharmacological characterization of the response of the leech pharynx to acetylcholine PY 1999

L4 ANSWER 36 OF 89 CA COPYRIGHT 2003 ACS
TI Single amino acid substitutions in .alpha.-***conotoxin*** PnIA shift selectivity for subtypes of the mammalian neuronal nicotinic acetylcholine receptor PY 1999

L4 ANSWER 37 OF 89 CA COPYRIGHT 2003 ACS
TI Conopeptides from Conus striatus and Conus textile by cDNA cloning PY 1999

- L4 ANSWER 38 OF 89 CA COPYRIGHT 2003 ACS
TI Single-Residue Alteration in α -***Conotoxin*** Pn1a Switches Its nAChR Subtype Selectivity PY 1999
- L4 ANSWER 39 OF 89 CA COPYRIGHT 2003 ACS
TI Aromatic substitutions in α -***conotoxin*** Inhl. Synthesis of iodinated photoactivatable derivative PY 1999
- L4 ANSWER 40 OF 89 CA COPYRIGHT 2003 ACS
TI Three-dimensional structure of α -***conotoxin*** EI determined by ¹H NMR spectroscopy PY 1999
- L4 ANSWER 41 OF 89 CA COPYRIGHT 2003 ACS
TI Minimal conformation of the α -***conotoxin*** Inhl for the α -7 neuronal nicotinic acetylcholine receptor recognition: correlated CD, NMR and binding studies PY 1999
- L4 ANSWER 42 OF 89 CA COPYRIGHT 2003 ACS
TI Functional α -6-containing nicotinic receptors are present in chick retina PY 1999
- L4 ANSWER 43 OF 89 CA COPYRIGHT 2003 ACS
TI Pairwise interactions between neuronal α -7 acetylcholine receptors and α -***conotoxin*** Inhl PY 1999
- L4 ANSWER 44 OF 89 CA COPYRIGHT 2003 ACS
TI Cloning and sequencing of α -***conotoxin*** sequences from Conus textile venom duct PY 1999
- L4 ANSWER 45 OF 89 CA COPYRIGHT 2003 ACS
TI Solution structure of α -***conotoxin*** Inhl determined by two-dimensional NMR spectroscopy PY 1999
- L4 ANSWER 46 OF 89 CA COPYRIGHT 2003 ACS
TI Solution Structure of α -***Conotoxin*** Inhl by ¹H Nuclear Magnetic Resonance PY 1999
- L4 ANSWER 47 OF 89 CA COPYRIGHT 2003 ACS
TI Inhibition of nicotine-induced hippocampal norepinephrine release in rats by α -conotoxins MII and AulB microinjected into the locus coeruleus PY 1999
- L4 ANSWER 48 OF 89 CA COPYRIGHT 2003 ACS
TI Uses of α -***conotoxin*** peptides PY 1999 1999 2001 2002
- L4 ANSWER 49 OF 89 CA COPYRIGHT 2003 ACS
TI Identification of tyrosine sulfation in Conus pennaeus conotoxins α -Pn1a and α -Pn1b: further investigation of labile sulfo- and phosphopeptides by electrospray, matrix-assisted laser desorption/ionization (MALDI) and atmospheric pressure MALDI mass spectrometry PY 1999
- L4 ANSWER 50 OF 89 CA COPYRIGHT 2003 ACS
TI α -***Conotoxin*** Inhl inhibits the α -bungarotoxin- resistant nicotinic response in bovine adrenal chromaffin cells PY 1999
- L4 ANSWER 51 OF 89 CA COPYRIGHT 2003 ACS
TI NMR Solution Structure of α -***Conotoxin*** Inhl and Comparison to Other Conotoxins Specific for Neuronal Nicotinic Acetylcholine Receptors PY 1999
- L4 ANSWER 52 OF 89 CA COPYRIGHT 2003 ACS
TI Preparation and interaction of α -***conotoxin*** peptides with neuronal nicotinic acetylcholine receptors PY 1999 1999 1999 2000 2001
- L4 ANSWER 53 OF 89 CA COPYRIGHT 2003 ACS
TI NMR spatial structure of α -***conotoxin*** Inhl reveals a common scaffold in snail and snake toxins recognizing neuronal nicotinic acetylcholine receptors PY 1999
- L4 ANSWER 54 OF 89 CA COPYRIGHT 2003 ACS
TI Accelerated chemical synthesis of peptides and small proteins PY 1999
- L4 ANSWER 55 OF 89 CA COPYRIGHT 2003 ACS
TI Unmasking the functions of the chromaffin cell α -7 nicotinic receptor by using short pulses of acetylcholine and selective blockers PY 1998
- L4 ANSWER 56 OF 89 CA COPYRIGHT 2003 ACS
TI α -***Conotoxin*** AulB selectively blocks α -3, β -4, 4 nicotinic acetylcholine receptors and nicotine-evoked norepinephrine release PY 1998
- L4 ANSWER 57 OF 89 CA COPYRIGHT 2003 ACS
TI Three-Dimensional Solution Structure of α -***Conotoxin*** MII by NMR Spectroscopy: Effects of Solution Environment on Helicity PY 1998
- L4 ANSWER 58 OF 89 CA COPYRIGHT 2003 ACS
TI Functional determinants by which snake and cone snail toxins block the α -7 neuronal nicotinic acetylcholine receptors PY 1998
- L4 ANSWER 59 OF 89 CA COPYRIGHT 2003 ACS
TI Molecular dissection of subunit interfaces in the nicotinic acetylcholine receptor PY 1998
- L4 ANSWER 60 OF 89 CA COPYRIGHT 2003 ACS
TI Toxic conopeptides AulA, AulB and AulC of cone snail venom active against nicotinic receptors PY 1998 1999 1998
- L4 ANSWER 61 OF 89 CA COPYRIGHT 2003 ACS
TI Two distinct nicotinic receptors, one pharmacologically similar to the vertebrate α -7-containing receptor, mediate Cl currents in Aplysia neurons PY 1998
- L4 ANSWER 62 OF 89 CA COPYRIGHT 2003 ACS
TI The 1.1 \AA Resolution Crystal Structure of [Tyr⁵]Epi, a Novel α -***Conotoxin*** from Conus episcopatus. Solved by Direct Methods PY 1998
- L4 ANSWER 63 OF 89 CA COPYRIGHT 2003 ACS
TI α -***Conotoxin*** Epi, a novel sulfated peptide from Conus episcopatus that selectively targets neuronal nicotinic acetylcholine receptors PY 1998
- L4 ANSWER 64 OF 89 CA COPYRIGHT 2003 ACS
TI Identification of residues in the neuronal α -7 acetylcholine receptor that confer selectivity for ***conotoxin*** Inhl PY 1998
- L4 ANSWER 65 OF 89 CA COPYRIGHT 2003 ACS
TI Use of α -***conotoxin*** MII/7 to treat disorders resulting from nicotine-stimulated dopamine release PY 1998 1998 1998 1998 1999
- L4 ANSWER 66 OF 89 CA COPYRIGHT 2003 ACS
TI Structural elements in α -***conotoxin*** Inhl essential for binding to neuronal α -7 receptors PY 1998
- L4 ANSWER 67 OF 89 CA COPYRIGHT 2003 ACS
TI Use of ***conotoxin*** peptides Inhl and MII as cardiovascular agents PY 1998 1998 2001 1999 2001
- L4 ANSWER 68 OF 89 CA COPYRIGHT 2003 ACS
TI Differential inhibition by α -***conotoxin*** MII of the nicotinic stimulation of [3H] dopamine release from rat striatal synaptosomes and slices PY 1998
- L4 ANSWER 69 OF 89 CA COPYRIGHT 2003 ACS
TI Three-Dimensional Solution Structure of α -***Conotoxin*** MII, an α -3, β -2 Neuronal Nicotinic Acetylcholine Receptor-Targeted Ligand PY 1997
- L4 ANSWER 70 OF 89 CA COPYRIGHT 2003 ACS
TI Crystal Structure at 1.1 \AA Resolution of α -***Conotoxin*** Pn1b: Comparison with α -Conotoxins Pn1a and GI PY 1997
- L4 ANSWER 71 OF 89 CA COPYRIGHT 2003 ACS
TI Determinants of specificity for α -***conotoxin*** MII on α -3, β -2 neuronal nicotinic receptors PY 1997
- L4 ANSWER 72 OF 89 CA COPYRIGHT 2003 ACS
TI Differential block of nicotinic synapses on B versus C neurons in sympathetic ganglia of frog by α -conotoxins MII and Inhl PY 1997
- L4 ANSWER 73 OF 89 CA COPYRIGHT 2003 ACS
TI Identification of genes encoding A-lineage ***conotoxin*** peptides by PCR PY 1996 1995 1996
- L4 ANSWER 74 OF 89 CA COPYRIGHT 2003 ACS
TI ***Conotoxin*** peptides PY 1997 1995 1996 1996 1996 1998 1998 1999
- L4 ANSWER 75 OF 89 CA COPYRIGHT 2003 ACS
TI Use of ***conotoxin*** peptides U002 and MII for treating or detecting small-cell lung carcinoma PY 1996 1997 1996 1998 1998 1999
- L4 ANSWER 76 OF 89 CA COPYRIGHT 2003 ACS
TI α -***Conotoxin*** Inhl: a competitive antagonist at α -bungarotoxin-sensitive neuronal nicotinic receptors in hippocampal neurons PY 1996
- L4 ANSWER 77 OF 89 CA COPYRIGHT 2003 ACS
TI ***Conotoxin*** peptides PY 1996 1995 1996 1995 1995 1995 1997 1996 2002 1998 2002 2002 1997 1996 1997 1997 1997 1998
- L4 ANSWER 78 OF 89 CA COPYRIGHT 2003 ACS
TI The 1.1 \AA crystal structure of the neuronal acetylcholine receptor antagonist, α -***conotoxin*** Pn1a from Conus pennaeus PY 1996

L4 ANSWER 79 OF 89 CA COPYRIGHT 2003 ACS
 TI A new, alpha-***conotoxin*** which targets alpha 3 beta 2 nicotinic acetylcholine receptors PY 1996

L4 ANSWER 80 OF 89 CA COPYRIGHT 2003 ACS
 TI alpha-***Conotoxin*** Impairments I inhibits nicotine-evoked hormone release and cell proliferation in human neuroendocrine carcinoma cells PY 1996

L4 ANSWER 81 OF 89 CA COPYRIGHT 2003 ACS
 TI ***Conotoxin*** peptides of Conus striatus PY 1995 1996 1997 1996 2002 1998 2002

L4 ANSWER 82 OF 89 CA COPYRIGHT 2003 ACS
 TI alpha-***Conotoxin*** EI, A New Nicotinic Acetylcholine Receptor Antagonist with Novel Selectivity PY 1995

L4 ANSWER 83 OF 89 CA COPYRIGHT 2003 ACS
 TI alpha-***Conotoxin*** Im I exhibits subtype-specific nicotinic acetylcholine receptor blockade: preferential inhibition of homomeric, alpha 7 and alpha 9 receptors PY 1995

L4 ANSWER 84 OF 89 CA COPYRIGHT 2003 ACS
 TI alpha- Conotoxins selectively inhibit one of the two acetylcholine binding sites of nicotinic receptors PY 1995

L4 ANSWER 85 OF 89 CA COPYRIGHT 2003 ACS
 TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals PY 1995 1995 1995

L4 ANSWER 86 OF 89 CA COPYRIGHT 2003 ACS
 TI New Mollusk-Specific, alpha-Conotoxins Block Aplysia Neuronal Acetylcholine Receptors PY 1994

L4 ANSWER 87 OF 89 CA COPYRIGHT 2003 ACS
 TI A nicotinic acetylcholine receptor ligand of unique specificity, alpha-***conotoxin*** Im PY 1994

L4 ANSWER 88 OF 89 CA COPYRIGHT 2003 ACS
 TI Novel, alpha- and omega-conotoxins and Conus striatus venom PY 1992

L4 ANSWER 89 OF 89 CA COPYRIGHT 2003 ACS
 TI ***Conotoxin*** -related compounds PY 1995

L4 ANSWER 6 OF 89 CA COPYRIGHT 2003 ACS AN 137:332622 CA
 TI Toxins R Us: more pharmacological tools from nature's superstore
 AU Harvey, Alan L.

CS Strathclyde Institute for Drug Research, Dept of Physiology and Pharmacology, University of Strathclyde, Glasgow, G4 0NR, UK

SO Trends in Pharmacological Sciences (2002), 23(5), 201-203 CODEN: TPHSDY; ISSN: 0165-6147

PB Elsevier Science Ltd. DT Journal; General Review LA English

RE CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 48 OF 89 CA COPYRIGHT 2003 ACS AN 131:82983 CA
 TI Uses of alpha-***conotoxin*** peptides
 IN Oliveira, Baldomero M.; McIntosh, J. Michael; Yoshikami, Doju; Cartier, G. Edward; Luo, Siqin
 PA University of Utah Research Foundation, USA
 SO PCT Int. Appl., 40 pp. CODEN: PIXXD2 DT Patent LA English
 FAN CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9933482 A1 19990708 WO 1998-US27367 19981223
 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, GR, GU, HU, ID, IL, IN, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 AU 9920917 A1 19990719 AU 1999-20917 19981223
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 PRAI US 1997-70153P P 19971231
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 OS MARPAT 131:82983
 RE CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 16 OF 89 CA COPYRIGHT 2003 ACS
 AN 136:146437 CA
 TI New members of the .mu.-***conotoxin*** family for use in the treatment of disease associated with sodium channel function and cDNAs encoding them
 IN Oliveira, Baldomero M.; McIntosh, J. Michael; Garrett, James E.; Watkins, Maren; Cruz, Lourdes J.; Shon, Ki-Joon; Jacobsen, Richard; Jones, Robert M.; Cartier, G. Edward; Shen, Gregory S.
 PA University of Utah Research Foundation, USA; Cognetix, Inc. SO PCT Int. Appl., 231 pp. CODEN: PIXXD2 DT Patent LA English FAN CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002007678 A2 20020131 WO 2001-US23125 20010723
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, GU, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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 PRAI US 2000-219619P P 20000721
 US 2000-245157P P 20001103
 US 2001-264319P P 20010129
 US 2001-277270P P 20010321
 WO 2001-US23125 W 20010723

L4 ANSWER 25 OF 89 CA COPYRIGHT 2003 ACS AN 133:146232 CA
 TI Alpha-conotoxins and nucleic acids encoding them
 IN Watkins, Maren; Oliveira, Baldomero M.; Hillyard, David R.; McIntosh, J. Michael; Jones, Robert M.
 PA University of Utah Research Foundation, USA; Cognetix, Inc. SO PCT Int. Appl., 229 pp. CODEN: PIXXD2 DT Patent LA English FAN CNT 2

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2000044776 A1 20000803 WO 2000-US1979 20000128
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, GR, GU, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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 EP 1147130 A1 20011024 EP 2000-908382 20000128
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
 JP 2002534996 T2 20021022 JP 2000-596032 20000128
 PRAI US 1999-118381P P 19990129
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 OS MARPAT 133:146232
 RE CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 26 OF 89 CA COPYRIGHT 2003 ACS AN 133:131093 CA
 TI Protein and cDNA sequences of Conus alpha-conotoxins and the therapeutic uses thereof as neuromuscular blocking agent
 IN Oliveira, Baldomero M.; Layer, Richard T.; Watkins, Maren; Hillyard, David R.; McIntosh, J. Michael; Jones, Robert M.
 PA University of Utah Research Foundation, USA; Cognetix, Inc. SO PCT Int. Appl., 95 pp. CODEN: PIXXD2 DT Patent LA English FAN CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2000043409 A2 20000727 WO 2000-US1372 20000121

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

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AU 2000027327 A5 20000807 AU 2000-27327 20000121

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EP 1159288 A1 20011205 EP 2000-905680 20000121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PA US 1999-116882P P 19990122

US 1999-116882P P 19990122

WO 2000-US1372 W 20000121

OS MARPAT 133:131093

L4 ANSWER 32 OF 89 CA COPYRIGHT 2003 ACS

AN 132:288791 CA

TI rno. ***Conotoxin*** peptides with alpha 1-adrenoceptor antagonist activity, nucleic acids encoding them, antibodies, and therapeutic uses

IN Lewis, Richard James; Alewood, Paul Francis; Sharpe, Iain Andrew

PA The University of Queensland, Australia SO PCT Int. Appl., 47 pp. CODEN: PIXXD2

DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2000020443 A1 20000413 WO 1999-AU843 19991001

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2344551 AA 20000413 CA 1999-2344551 19991001

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

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RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE.FORMAT

L4 ANSWER 34 OF 89 CA COPYRIGHT 2003 ACS AN 132:237373 CA

TI Preparation of cyclized ***conotoxin*** peptides

IN Craik, David James; Daly, Norelle Lee; Nielsen, Katherine Justine

PA University of Queensland, Australia SO PCT Int. Appl., 43 pp. CODEN: PIXXD2

DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2000015654 A1 20000323 WO 1999-AU769 19990914

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

AU 9960705 A1 20000403 AU 1999-60705 19990914

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EP 1129106 A1 20010905 EP 1999-947111 19990914

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAL AU 1998-5895 A 19980914

WO 1999-AU769 W 19990914

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE.FORMAT

L4 ANSWER 52 OF 89 CA COPYRIGHT 2003 ACS AN 130:297009 CA

TI Preparation and interaction of alpha-***conotoxin*** peptides with neuronal nicotinic acetylcholine receptors

IN Shon, Ki-joon; Oliveira, Baldomero M.; Rivier, Jean E.; Koerber, Steven C.; Shen, Gregory S.; McIntosh, J. Michael; Cartier, G. Edward; Yoshikami, Doju

PA University of Utah Research Foundation, USA; Case Western Reserve University; Salk Institute; Cognetix, Inc. SO PCT Int. Appl., 176 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1

DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9921878 A1 19990506 WO 1998-US22368 19981023

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2308115 AA 19990506 CA 1998-2308115 19981023

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, FI

JP 2001521042 T2 20011106 JP 2000-517986 19981023

PRAL US 1997-62783P P 19971024

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OS MARPAT 130:297009

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE.FORMAT

L4 ANSWER 60 OF 89 CA COPYRIGHT 2003 ACS AN 130:21651 CA

TI Toxic conopeptides AulA, AulB and AulC of cone snail venom active against nicotinic receptors

IN McIntosh, J. Michael; Cartier, G. Edward; Yoshikami, Doju; Luo, Siqin; Oliveira, Baldomero M.

PA University of Utah Research Foundation, USA SO PCT Int. Appl., 22 pp. CODEN: PIXXD2

DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9851322 A1 19981119 WO 1998-US7004 19980409

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5866682 A 19990202 US 1997-857068 19970515

AU 9871043 A1 19981208 AU 1998-71043 19980409

PRAL US 1997-857068 19970515

WO 1998-US7004 19980409

OS MARPAT 130:21651

E.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE.FORMAT

L4 ANSWER 65 OF 89 CA COPYRIGHT 2003 ACS AN 129:37452 CA

TI Use of alpha-***conotoxin*** M17 to treat disorders resulting from nicotine-stimulated dopamine release

IN McIntosh, J. Michael; Kulak, Jennifer M.; Yoshikami, Doju; Oliveira, Baldomero M.

PA University of Utah Research Foundation, USA SO PCT Int. Appl., 30 pp. CODEN: PIXXD2

DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9824462 A1 19980611 WO 1997-US22350 19971205

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, BG, CH, CZ, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

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US 5922679 A 19990713 US 1998-45925 19980323
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PRAI US 1996-761674 19961206
WO 1997-US22350 19971205

RE CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
THE RE FORMAT ALL CITATIONS AVAILABLE IN

L4 ANSWER 67 OF 89 CA COPYRIGHT 2003 ACSBAN 129:12744 CA
TI Use of ***conotoxin*** peptides [mi] and [ml] as cardiovascular agents
IN Oliveira, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurifno D.
PA University of Utah Research Foundation, USA SO PCT Int. Appl., 24 pp CODEN: PXXD2 DT Patent LA English FAN CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9822126 A1 19980528 WO 1997-US20669 19971117
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, BG, CH, CZ, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, MC, PT, IE, FI
JP 2001505878 T2 20010508 JP 1998-523732 19971117
PRAI US 1996-31141P P 19961148
WO 1997-US20669 W 19971117

RE CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 73 OF 89 CA COPYRIGHT 2003 ACS AN 126:182612 CA
TI Identification of genes encoding A-lineage ***conotoxin*** peptides by PCR
IN Oliveira, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurifno D.
PA University of Utah Research Foundation, USA SO U.S., 36 pp., Cont.-in-part of U.S. 5,514,774, CODEN: USXXAM
DT Patent LA English FAN CNT 7
PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 5589340 A 19961231 US 1996-477383 19950607
US 5432155 A 19950711 US 1993-84848 19930629
US 5514774 A 19960507 US 1993-137800 19931019
PRAI US 1993-84848 A2 19930629
US 1993-137800 A2 19931019

L4 ANSWER 74 OF 89 CA COPYRIGHT 2003 ACS AN 126:152786 CA
TI ***Conotoxin*** peptides
IN Oliveira, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurifno D.
PA University of Utah Research Foundation, USA SO U.S., 35 pp., Cont.-in-part of U.S. 5,514,774, CODEN: USXXAM
DT Patent LA English FAN CNT 7
PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 5589372 A 19970121 US 1995-487174 19950607
US 5432155 A 19950711 US 1993-84848 19930629
US 5514774 A 19960507 US 1993-137800 19931019
CA 2223737 AA 19961219 CA 1996-2223737 19960604
WO 9640211 A1 19961219 WO 1996-US7962 19960604

W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AU 9662503 A1 19961230 AU 1996-62503 19960604
AU 695055 B2 19980806
EP 844883 A1 19980603 EP 1996-921234 19960604
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, MC, PT, IE, FI
JP 11506737 T2 19990615 JP 1996-500831 19960604
PRAI US 1993-84848 A2 19931019
US 1993-137800 A2 19931019
US 1995-487174 A 19950607
WO 1996-US7962 W 19960604

L4 ANSWER 75 OF 89 CA COPYRIGHT 2003 ACS AN 126:126900 CA
TI Use of ***conotoxin*** peptides U002 and M11 for treating or detecting small-cell lung carcinoma
IN Oliveira, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurifno D.
PA University of Utah Research Foundation, USA SO PCT Int. Appl., 28 pp CODEN: PXXD2
DT Patent LA English FAN CNT 7
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9640211 A1 19961219 WO 1996-US7962 19960604
W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 5589372 A 19970121 US 1995-487174 19950607
AU 9662503 A1 19961230 AU 1996-62503 19960604
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EP 844883 A1 19980603 EP 1996-921234 19960604
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IT, LU, MC, NL, PT, SE, MC, PT, IE, FI
JP 11506737 T2 19990615 JP 1996-500831 19960604
PRAI US 1993-84848 A2 19931019
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WO 1996-US7962 W 19960604

L4 ANSWER 76 OF 89 CA COPYRIGHT 2003 ACS AN 125:239192 CA
TI alpha-***Conotoxin*** -lmi: a competitive antagonist at alpha-bungarotoxin-sensitive neuronal nicotinic receptors in hippocampal neurons
AU Pereira, Edna F. R.; Alkondon, M.; McIntosh, J. Michael; Albuquerque, Edson X.
CS Dep. Pharmacol. Experimental Therapeutics, Univ. Maryland Sch. Med., Baltimore, MD, USA
SO Journal of Pharmacology and Experimental Therapeutics (1996), 278(3), 1472-1483 CODEN: JPETAB; ISSN: 0022-3565
PB Williams & Wilkins DT Journal LA English

L4 ANSWER 77 OF 89 CA COPYRIGHT 2003 ACS AN 125:28184 CA
TI ***Conotoxin*** peptides
IN Oliveira, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurifno D.
PA University of Utah Research Foundation, USA SO U.S., 32 pp., Cont.-in-part of U.S. 5,432,155, CODEN: USXXAM
DT Patent LA English FAN CNT 7
PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 5514774 A 19960507 US 1993-137800 19931019
US 5432155 A 19950711 US 1993-84848 19930629
CA 2165566 AA 19950112 CA 1994-2165566 19940627
CA 2172989 AA 19950427 CA 1994-2172989 19941019
WO 9511256 A1 19950427 WO 1994-US11927 19941019
W: AU, CA, JP

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AU 9510831 A1 19950508 AU 1995-10831 19941019
AU 681216 B2 19970821
EP 728146 A1 19960828 EP 1995-901691 19941019
EP 728146 B1 20020109
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
JP 10509415 T2 19980914 JP 1994-512187 19941019
AT 211764 E 20020115 AT 1995-901691 19941019

ES 2169754 T3 20020716 ES 1995-901691 19941019
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 US 5589340 A 19961231 US 1995-477383 19950607
 US 5595972 A 19970121 US 1995-487174 19950607
 US 5633347 A 19970527 US 1995-480750 19950607
 AU 9735197 A1 19971120 AU 1997-35197 19970821
 AU 699078 B2 19981119
 PRAI US 1993-84848 A2 19930629
 US 1993-137800 A 19931019
 WO 1994-US11927 W 19941019

L4 ANSWER 78 OF 89 CA COPYRIGHT 2003 ACS AN 124-335314 CA
 TI The 1.1 ANG. crystal structure of the neuronal acetylcholine receptor antagonist, alpha-***conotoxin*** PnIA from *Conus pennaceus*

AU Hu, Shu-Hong; Gehrmann, John; Guddat, Luke W.; Alewood, Paul F.; Craik, David J.; Martin, Jennifer L.
 CS Center Drug Design and Development, Univ. Queensland, St. Lucia, 4072, Australia
 SO Structure (London) (1996), 4(4), 417-423 CODEN: STRUE6; ISSN: 0969-2126 PB Current Biology
 DT Journal LA English

AB The 1.1 ANG. crystal structure of synthetic PnIA was determined by direct methods using the Shake-and-Bake program. The three-dimensional structure incorporates a beta-turn followed by two alpha-helical turns. The conformation is stabilized by two disulfide bridges that form the interior of the mol., with all other side chains oriented outwards. The compact architecture of the PnIA toxin provides a rigid framework for presentation of chem. groups that are required for activity. The structure is characterized by distinct hydrophobic and polar surfaces: a 16-ANG. segn. of the sole pos. and neg. charges (these two charged residues being located at opposite ends of the mol.), a hydrophobic region and a protruding tyrosine side chain. These features may be important for the specific interaction of PnIA with neuronal nAChR.

L4 ANSWER 81 OF 89 CA COPYRIGHT 2003 ACS AN 124-48165 CA
 TI ***Conotoxin*** peptides of *Conus striatus*

IN Olivera, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurina D.
 PA University of Utah Research Foundation, USA SO PCT Int. Appl., 66 pp. CODEN: PIXXD2
 DT Patent LA English FAN/CNT 7

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9511256 A1 19950427 WO 1994-US11927 19941019
 W: AU, CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 5514774 A 19960507 US 1993-137800 19931019

AU 9510831 A1 19950508 AU 1995-10831 19941019

AU 681216 B2 19970821

EP 728146 A1 19960828 EP 1995-901691 19941019

EP 728146 B1 20020109

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

JP 10509415 T2 19980914 JP 1994-512187 19941019

AT 211764 E 20020115 AT 1995-901691 19941019

PRAI US 1993-137800 A 19931019

US 1993-84848 A2 19930629

WO 1994-US11927 W 19941019

L4 ANSWER 82 OF 89 CA COPYRIGHT 2003 ACS AN 123-33053 CA

TI alpha-***Conotoxin*** EI, A New Nicotinic Acetylcholine Receptor Antagonist with Novel Selectivity

AU Martinez, Jennifer S.; Olivera, Baldomero M.; Gray, William R.; Craig, A. Gray; Groebe, Duncan R.; Abramson, Stewart N.; McIntosh, J. Michael

CS Department of Biology, University of Utah, Salt Lake City, UT 84112, USA
 SO Biochemistry (1995), 34(44), 14519-26 CODEN: BICHAW; ISSN: 0006-2960 PB American Chemical Society
 DT Journal LA English

AB We report the isolation and characterization of a novel nicotinic acetylcholine receptor (nAChR) ligand. The toxin is an 18 amino acid peptide and is the first reported alpha-***conotoxin*** from an Atlantic fish-hunting cone. The peptide was purified from the venom of *Conus emineus* and is called alpha-***conotoxin*** EI. The sequence diverges from that of previously isolated alpha-conotoxins. We demonstrate that this structural divergence has functional consequences. In Torpedo nAChRs, alpha-***conotoxin*** EI selectively binds the agonist site near the alpha/delta subunit interface in contrast to alpha-***conotoxin*** M1 which selectively targets the alpha/gamma subunit binding site. In mammalian nAChRs alpha-***conotoxin*** EI shows high affinity for both the alpha/delta and alpha/gamma subunit interfaces (with some preference

for the alpha/delta site), whereas alpha-***conotoxin*** M1 is highly selective for the alpha/delta ligand binding site. The sequence of the peptide is: Arg-Asp-Hyp-Cys-Cys-Tyr-His-Pro-Thr-Cys-Asn-Met-Ser-Asn-Pro-Gln-Ile-Cys-NH₂, with disulfide bridging between Cys4-Cys10 and Cys5-Cys18, analogous to those of previously described alpha-conotoxins. This sequence has been verified by total chem. synthesis. Thus, alpha-***conotoxin*** EI is a newly available tool with unique structure and function for characterization of nAChRs.

L4 ANSWER 85 OF 89 CA COPYRIGHT 2003 ACS AN 123-50449 CA

TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals

IN Olivera, Baldomero M.; Rivier, Jean E. F.; Cruz, Lourdes J.; Abogadie, Fe; Hopkins, Chris E.; Dykett, John; Torres, Josep L.

PA Salk Institute for Biological Studies, USA; University of Utah Research Foundation

SO PCT Int. Appl., 55 pp. CODEN: PIXXD2

DT Patent

LA English

FAN/CNT 7

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9501436 A1 19950112 WO 1994-US7194 19940627
 W: AU, CA, JP, KR

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 5432155 A 19950711 US 1993-84848 19930629

CA 2165566 AA 19950112 CA 1994-2165566 19940627

AU 9471158 A1 19950124 AU 1994-71158 19940627

AU 678837 B2 19970612

EP 706566 A1 19960417 EP 1994-920316 19940627

R: AT, BE, CH, DE, DK, FR, GB, IE, IT, LU, MC, NL, SE

US 5700778 A 19971223 US 1995-458499 19950602

AU 9735197 A1 19971120 AU 1997-35197 19970821

AU 699078 B2 19981119

PRAI US 1993-84848 A 19930629

WO 1994-US7194 W 19940627

OS MARPAT 123-50449

AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chem. synthesis. The peptides may be used to analyze acetylcholine receptors and in pharmaceuticals (no data). Thirteen different conotoxins contg. 16-46 amino acids were prepd. by solid phase peptide synthesis and tested for biol. activity.

L4 ANSWER 86 OF 89 CA COPYRIGHT 2003 ACS AN 121-201190 CA

TI New Mollusk-Specific alpha-Conotoxins Block Aplysia Neuronal Acetylcholine Receptors

AU Fainzilber, Michael; Hasson, Ark; Oren, Ruth; Burlingame, Alma L.; Gordon, Dalia; Spira, Micha E.; Zlotkin, Eliahu

CS Silberman Institute of Life Sciences, Hebrew University of Jerusalem, Jerusalem, 91904, Israel

SO Biochemistry (1994), 33(32), 9523-9 CODEN: BICHAW; ISSN: 0006-2960 DT Journal LA English

AB Two mollusk-specific neurotoxic peptides from the venom of the molluscorous snail *Conus pennaceus* are described. These new toxins block acetylcholine receptors (AChR) of cultured Aplysia neurons. Bath application of 0.5-1 muM toxin induces 5-10-mV membrane depolarization, which recovers to the control level within 1-3 min in the presence of the toxin. The response is blocked by 1 mM hexamethonium. Concomitantly with the transient depolarization, the toxins block approx. 90% the depolarizing responses evoked by brief iontophoretic application of acetylcholine. The pharmacol. and amino acid sequences of the toxins (alpha-PnIA, GCCSLPPCAANNPDVC-NH₂; alpha-PnIB, GCCSLPPCALSNPDVC-NH₂) enable their classification as novel alpha-conotoxins. The sequences differ from those of previously described alpha-conotoxins in a no. of features, the most striking of which is the presence of a single neg. charged residue in the C-terminal loop. This loop contains a pos. charged residue in piscivorous venom alpha-conotoxins. In contrast to other alpha-conotoxins, which are selective for vertebrate skeletal muscle nicotinic ACh receptors, these *Conus pennaceus* toxins block neuronal ACh receptors in molluscs. As such they are new probes which can be used to define subtypes of ACh receptors, and they should be useful tools in the study of structure-function relationships in ACh receptors.

L4 ANSWER 88 OF 89 CA COPYRIGHT 2003 ACS AN 117-206785 CA

TI Novel alpha- and omega-conotoxins and *Conus striatus* venom

AU Ramilo, Cecilia A.; Zafra, Glenn C.; Nadasi, Laszlo; Hammerland, Lance G.; Yoshikami, Doju; Gray, William R.; Kristipati, Ramasharma; Ramachandran, J.; Miljanich, George; et al.

CS Mar. Sci. Inst., Univ. Philippines, Quezon City, 1101, Philippines

SO Biochemistry (1992), 31(41), 9919-26 CODEN: BICHAW; ISSN: 0006-2960

DT Journal
LA English

AB Three neurotoxic peptides from the venom of *C. striatus* were purified, biochem. characterized, and chem. synthesized. One of these, an acetylcholine receptor blocker designated, alpha-, ***conotoxin*** SII, has the sequence GCCCNPACPPNYGGTSCS. In contrast to all other alpha-conotoxins, SII has 3 disulfide bonds (instead of two), has no net pos. charge, and has a free C-terminus. The other 2 paralytic peptides are Ca channel-targeted omega-conotoxins, SVIA and CRSSGSPCGVTSICCGRCYRGKCT-NH2. Although omega-, ***conotoxin*** so far characterized and has the sequence CKKGQCRKTSYCCSSGSGRSGKC-NH2. This peptide has a different pharmacol. specificity from other omega-conotoxins previously purified from *Conus* venoms; only omega-, ***conotoxin*** SVIB has proven to be lethal to mice upon ic injection. Binding competition expts. with rat brain synaptosomal membranes indicate that the high-affinity binding site for omega-, ***conotoxin*** SVIB is distinct from the high-affinity omega-, ***conotoxin*** GVIA or MVIIA site.

L4 ANSWER 89 OF 89 CA COPYRIGHT 2003 ACS AN 105:43332 CA

TI ***Conotoxin***-related compounds
IN Sakakibara, Shunpei; Nishihuchi, Yuji
PA Ajinomoto Co., Inc., Japan SO Jpn. Kokai Tokyo Koho, 16 pp. CODEN: JKXXAF
DT Patent
LA Japanese
FAN CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 60226899 A2 19851112 JP 1984-83463 19840425
PRAI JP 1984-83463 19840425
GI

/ Structure 1 in file gra /

AB The title compds. I [U = Gly-Alg-, H; V = Pro, Gly, W = NH2, OH], useful as muscle relaxants and hypnotics (effectiveness comparable to that of a tubocurarine deriv.), were prepd. Thus, the protected cyclic oligopeptide amine II (Acm = AcNHCH2) was dissolved in aq. MeOH/dioxane cong. HCl and 0.1N iodine/MeOH added with vigorous agitation. After 20 min the reaction was stopped by addn. of ascorbic acid in citric acid buffer (pH 5.0) to give 11% I (U = H, W = NH2, V = Pro).

L5 ANSWER 1 OF 4 CA COPYRIGHT 2003 ACS

TI Pairwise interactions between neuronal alpha-7 acetylcholine receptors and alpha-conotoxin PnIB PY 2000

L5 ANSWER 2 OF 4 CA COPYRIGHT 2003 ACS

TI Single amino acid substitutions in alpha-conotoxin PnIA shift selectivity for subtypes of the mammalian neuronal nicotinic acetylcholine receptor PY 1999

L5 ANSWER 3 OF 4 CA COPYRIGHT 2003 ACS

TI Uses of alpha-conotoxin peptides PY 1999 1999 2001 2002

L5 ANSWER 4 OF 4 CA COPYRIGHT 2003 ACS

TI Accelerated chemical synthesis of peptides and small proteins PY 1999

L5 ANSWER 2 OF 4 CA COPYRIGHT 2003 ACS

AN 132:132466 CA

TI Single amino acid substitutions in alpha-conotoxin PnIA shift selectivity for subtypes of the mammalian neuronal nicotinic acetylcholine receptor

AU Hogg, Ron C.; Miranda, Les P.; Craik, David J.; Lewis, Richard J.; Alewood, Paul F.; Adams, David J.

CS The Department of Physiology and Pharmacology, University of Queensland, Brisbane, 4072, Australia

SO Journal of Biological Chemistry (1999), 274(61), 36559-36564 CODEN: JBCH43; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology DT Journal LA English

AB The alpha-conotoxins, a class of nicotinic acetylcholine receptor (nAChR) antagonists, are emerging as important probes of the role played by different nAChR subtypes in cell function and communication. In this study, the native alpha-conotoxins PnIA and PnIB were found to cause concn.-dependent inhibition of the ACh-induced current in all rat parasympathetic neurons examd., with IC50 values of 14 and 33 nM, and a maximal redn. in current amplitude of 87% and 71%, resp. The modified

alpha-conotoxin [N11S]PnIA reduced the ACh-induced current with an IC50 value of 375 nM and a maximally effective concn. caused 91% block. [A10L]PnIA was the most potent inhibitor, reducing the ACh-induced current in approx. 80% of neurons, with an IC50 value of 1.4 nM and 46% maximal block of the total current. The residual current was not inhibited further by alpha-bungarotoxin, but was further reduced by the alpha-conotoxins PnIA or PnIB, and by mecamylamine. 1H NMR studies indicate that PnIA, PnIB, and the analogs, [A10L]PnIA and [N11S]PnIA, have identical backbone structures. The authors propose that positions 10 and 11 of PnIA and PnIB influence potency and det. selectivity among alpha-7 and other nAChR subtypes, including alpha-3, beta-2 and alpha-3, beta-4. Four distinct components of the nicotinic ACh-induced current in mammalian parasympathetic neurons have been dissected with these conopeptides.

RE CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT